

SEQ ID NO: 10 (searched SEQ ID NO: 9, but mismatched, therefore 10).

RESULT 8  
HSDANSCA2  
LOCUS HSDANSCA2 4163 bp mRNA PRI 09-JAN-1997  
DEFINITION H.sapiens mRNA for SCA2 protein.  
ACCESSION Y08262  
VERSION Y08262.1 GI:1770389  
KEYWORDS SCA2 gene.  
SOURCE human.  
ORGANISM Homo sapiens  
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;  
Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
REFERENCE 1 (bases 1 to 4163)  
AUTHORS Imbert,G., Saudou,F., Yvert,G., Devys,D., Trottier,Y.,  
Garnier,J.M., Weber,C., Mandel,J.L., Cancel,G., Abbas,N.,  
Duerr,A.,  
Didierjean,O., Stevanin,G., Agid,Y. and Brice,A.  
TITLE Cloning of the gene for spinocerebellar ataxia 2 reveals a  
locus  
with high sensitivity to expanded CAG/glutamine repeats  
JOURNAL Nat. Genet. 14 (3), 285-291 (1996)  
MEDLINE 97051922  
REFERENCE 2 (bases 1 to 4163)  
AUTHORS Imbert,G.  
TITLE Direct Submission  
JOURNAL Submitted (20-SEP-1996) G. Imbert, I.G.B.M.C., Departement  
Of  
Genetics, B.P. 163, 67404 Illkirch Cedex, FRANCE  
FEATURES Location/Qualifiers  
source 1. .4163  
/organism="Homo sapiens"  
/isolate="DAN patient"  
/db\_xref="taxon:9606"  
/cell\_line="lymphoblastoid"  
/clone\_lib="DAN"  
/dev\_stage="adult"  
gene 1. .2747  
/gene="SCA2"  
CDS <1. .2747  
/gene="SCA2"  
/codon\_start=3  
/protein\_id="CAA69589.1"  
/db\_xref="GI:1770390"  
/db\_xref="SPTREMBL:Q99493"  
  
/translation="GNGGGAFRPGSRRLGLGGPPRPVVLLPLASPGAPPAAPTRA  
SPLGARASPPRSGVSLARPAPGCPRPACFPVYGPLTMSLKPQQQQQQQQQQQQQQQQQ  
QQQQQPPPAANVRKPGGSGLLASPAAPSPSSSSVSSSSATAPSSVVAATSGGGRPG  
LGRGRNSNKGLPQSTISFDGIYANMRMVHILTSVVGSKCEVQVKNGGIYEGVFKTYSP

KCDLVLDAAHEKSTESSSGPKREEIMESILFKCSDFVVVQFKDMDSSYAKRDAFTDSA  
 ISAKVNGEHKEKDLEPWDAGELTANEELEALENDVSNWDPNDMFRYNEENYGVVSTY  
 DSSLSSYTVPLERDNSEEFKREARANQLAEEIESSAQYKARVALENDDRSEEEKYTA  
 VQRNSSEREGHSINTRENKYIPPGQRNREVISWGSQRQNSPRMGQPGSGSMPSRSTSH  
 TSDFNPNNSGSDQRVVNGGVPWPSPCSPSSRPPSRYPQSGPNSLPPRAATPTRPPSRPP  
 SRPSRPPSHPSAHGSPAPVSTMPKRMSSEGPPRMSPKAQRHPRNHRVSAGRGSISSGL  
 EFVSHNPPSEAATPPVARTSPSGGTWSSVSVGPRLSPKTHRPRSPRQNSIGNTPSGP  
 VLASPQAGIIPTEAVAMPIPAASPTPASPASNRAVTPSSEAKDSRLQDQRQNSPAGNK  
 ENIKPNETSPSFSKAENKGISPVVSEHRKQIDDLKKFKNDFRLQPSSTSESMDQLLNK  
 NREGEKSRDLIKDIEPSAKDSFIENSSSNCTSGSSKPNSPSISPSILSNTTEHKGPE  
 VTSQGVQTSSPACKQEKDDKEKKDAAEQVRKSTLNPNAKEFNPRSFSQPKPSTTPTS  
 PRPQAQPSPSMVGHQQPTPVYTQPVCFAPNMMYPVPVSPGVQYQICPNSGKTSIIRVP

"

BASE COUNT        1136 a     1196 c     908 g     923 t  
 ORIGIN

Query Match                    94.1%;   Score 25.4;   DB 9;   Length 4163;  
 Best Local Similarity       96.3%;   Pred. No. 12;  
 Matches    26;   Conservative    0;   Mismatches    1;   Indels    0;  
 Gaps       0;

Qy        1 ccccttcgtcgctcctccttctccccct 27  
           |||||  
 Db       68 CCCCTTCGTCGTCGTCCTTCTCCCCCT 94

SEQ ID NO: 4

RESULT 1

HSDANSCA2

LOCUS HSDANSCA2 4163 bp mRNA PRI 09-JAN-1997

DEFINITION H.sapiens mRNA for SCA2 protein.

ACCESSION Y08262

VERSION Y08262.1 GI:1770389

KEYWORDS SCA2 gene.

SOURCE human.

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 4163)

AUTHORS Imbert,G., Saudou,F., Yvert,G., Devys,D., Trottier,Y.,  
Garnier,J.M., Weber,C., Mandel,J.L., Cancel,G., Abbas,N., Duerr,A.,  
Didierjean,O., Stevanin,G., Agid,Y. and Brice,A.

TITLE Cloning of the gene for spinocerebellar ataxia 2 reveals a locus  
with high sensitivity to expanded CAG/glutamine repeats

JOURNAL Nat. Genet. 14 (3), 285-291 (1996)

MEDLINE 97051922

REFERENCE 2 (bases 1 to 4163)

AUTHORS Imbert,G.

TITLE Direct Submission

JOURNAL Submitted (20-SEP-1996) G. Imbert, I.G.B.M.C., Departement Of  
Genetics, B.P. 163, 67404 Illkirch Cedex, FRANCE

FEATURES Location/Qualifiers

source

1. .4163  
/organism="Homo sapiens"  
/isolate="DAN patient"  
/db\_xref="taxon:9606"  
/cell\_line="lymphoblastoid"  
/clone\_lib="DAN"  
/dev\_stage="adult"

gene

1. .2747  
/gene="SCA2"

CDS

<1. .2747  
/gene="SCA2"  
/codon\_start=3  
/protein\_id="CAA69589.1"  
/db\_xref="GI:1770390"  
/db\_xref="SPTREMBL:Q99493"  
/translation="GNGGGAFRPGSRRLGLGGPPRPVVLPLASPGAPPAAPTRA  
SPLGARASPPRSGVSLARPAPGCPRPACEPVYGPLTMSLKPQQQQQQQQQQQQQQQ  
QQQQQPPAAANVRKPGGSGLLASPAAPSPSSSSVSSSSATAPSSVVAATSGGGRPG  
LGRGRNSNKGLPQSTISFDGIYANMRMVHILTSVVGSKCEVQVKNNGGIYEGVFKEYTSP  
KCDLVLDAAHEKSTESSSGPKREEIMESILFKCSDFVVVQFKDMDSSYAKRDAFTDSA  
ISAKVNGEHKEKDLEPWDAGELTANEELEALENDVSNOWDPNDMFRYNEENYGVVSTY  
DSSLSSYTVPLERDNSEEFKREARANQLAEEIESSAQYKARVALENDDRSEEEKYTA  
VQRNSSEREHGSINTRENKYIPPGQRNREVISWGSGRQNSPRMGQPGSGSMPSRSTSH  
TSDFNPNSSGSDQRVVNGGVWPWSPCPSPPSRPPSRYSQSGPNSLPRAATPTPPSRPP  
SRPSRPPSHPSAHGSPAPVSTMPKMSSEGPPRMSPKAQRHPRNHRVSAGRGSISSGL  
EFVSHNPPSEAAATPPVARTSPSGGTWSSVVGVPRLSPKTHRPRSPRQNSIGNTPSGP  
VLASQAGIIPTEAVAMPIPAASPTPASPASNRAVTPSSEAKSRLQDQRQNSPAGNK  
ENIKPNETSPSFSKAENKGISPVVSEHRKQIDDLKKFKNDLRLQPSSTSEMDQLLNK  
NREGEKSRDLIKDKIEPSAKDSFIENSSSNTSGSSKPNPSISPSILSNTHEHKGPE  
VTSQGVQTSSPACKQEKDDKEKKDAAEQVRKSTLNPNAKEFNPRSFSPKPKSTTPTS  
PRPQAQPSPSMVGHQQTPTVYTQPVCFAPNMMYPVPVSPGVQYQICPNSGKTSIIRVP  
"

BASE COUNT 1136 a 1196 c 908 g 923 t

ORIGIN

Query Match 100.0%; Score 31; DB 9; Length 4163;  
Best Local Similarity 100.0%; Pred. No. 0.65;  
Matches 31; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      1 ctcggcgggcctccccgccccttcgtcgtcg 31
          ||||||||||||||||||||||||||||
Db      51 CTCGGCGGGCCTCCCCGCCCTTCGTCGTCG 81
```

SEQ ID NO: 5

RESULT 7

HSDANSCA2  
LOCUS HSDANSCA2 4163 bp mRNA PRI 09-JAN-1997  
DEFINITION H.sapiens mRNA for SCA2 protein.  
ACCESSION Y08262  
VERSION Y08262.1 GI:1770389  
KEYWORDS SCA2 gene.  
SOURCE human.  
ORGANISM Homo sapiens  
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
REFERENCE 1 (bases 1 to 4163)  
AUTHORS Imbert,G., Saudou,F., Yvert,G., Devys,D., Trottier,Y.,  
Garnier,J.M., Weber,C., Mandel,J.L., Cancel,G., Abbas,N., Duerr,A.,  
Didierjean,O., Stevanin,G., Agid,Y. and Brice,A.  
TITLE Cloning of the gene for spinocerebellar ataxia 2 reveals a locus  
with high sensitivity to expanded CAG/glutamine repeats  
JOURNAL Nat. Genet. 14 (3), 285-291 (1996)  
MEDLINE 97051922  
REFERENCE 2 (bases 1 to 4163)  
AUTHORS Imbert,G.  
TITLE Direct Submission  
JOURNAL Submitted (20-SEP-1996) G. Imbert, I.G.B.M.C., Departement Of  
Genetics, B.P. 163, 67404 Illkirch Cedex, FRANCE  
FEATURES Location/Qualifiers  
source 1. .4163  
/organism="Homo sapiens"  
/isolate="DAN patient"  
/db\_xref="taxon:9606"  
/cell\_line="lymphoblastoid"  
/clone\_lib="DAN"  
/dev\_stage="adult"  
gene 1. .2747  
/gene="SCA2"  
CDS <1. .2747  
/gene="SCA2"  
/codon\_start=3  
/protein\_id="CAA69589.1"  
/db\_xref="GI:1770390"  
/db\_xref="SPTREMBL:Q99493"  
/translation="GNGGGAFRPGSRRLGLGGPPRPFFVVVLLPLASPGAPPAAPTRA  
SPLGARASPPRSGVSLARPAPGCPRPACFPVYGPLTMSLKPQQQQQQQQQQQQQQQQ  
QQQQQPPAAANVRKPGSGGLASPAAPSPSSSSVSSSSATAPSSVVAATSGGGRPG  
LGRGRNSNKGLPQSTISFDGIYANMRMVHILTSVVGSKCEVQVKNGGIYEGVFKTYSP  
KCDLVLDAAHEKSTESSGPKREEIMESILFKCSDFFVVVQFKDMDSSYAKRDAFTDSA  
ISAKVNGEHKEKDLEPWDAGELTANEELEALENDVSNOWDPNDMPRYNEENYGVVSTY  
DSSLSSYTVPLERDNSEEFKREARANQLAEEIESSAQYKARVALENDDRSEEEKYTA  
VQRNSSEREHGSINTRENKYIPPGQRNREVISWGSQRQNSPRMGQPGSGMPSRSTSH  
TSDFNPNSGSDQRVVNGGVPWPSPCPSRPPSRYPQSGPNSLPRAATPTRPPSRPP  
SRPSRPPSHPSAHGSPAPVSTMPKRMSSGPPRMSPKAQRHPRNHRVSAGRGSISSGL  
EFVSHNPPSEATPPVARTSPSGGTWSSVSGVPRLSPKTHRPRSPRQNSIGNTPSGP  
VLASPAQAGIIPTEAVAMPIPAASPTPASPASNRAVTPSSEAKDRLQDQRQNSPAGNK  
ENIKPNETSPSFSKAENKGISPVVSEHRKQIDDLKKFKNDFRLQPSSTSESMDQLLNK  
NREGESKRDLIKDKIEPSAKDSFIENSSNCTSGSSKPNPSISPSILSNTTEHKGPE  
VTSQGVQTSSPACKQEKDDKEKKDAAEQVRKSTLNPNAKEFNPRSFSPKPKSTPTPS  
PRPQAQPSPSMVGHQQTTPVYTQPVCFAPNMMYPVPVSPGVQYQICPNSGKTSIIRVP  
"  
BASE COUNT 1136 a 1196 c 908 g 923 t  
ORIGIN

Query Match 100.0%; Score 21; DB 9; Length 4163;  
Best Local Similarity 100.0%; Pred. No. 29;  
Matches 21; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      1 cctccccgccccttcgtcgtc 21
          |||
Db      60 CCTCCCCGCCCTTCGTCGTC 80
```

SEQ ID NO: 7

RESULT 1

HSDANSCA2

LOCUS HSDANSCA2 4163 bp mRNA PRI 09-JAN-1997

DEFINITION H.sapiens mRNA for SCA2 protein.

ACCESSION Y08262

VERSION Y08262.1 GI:1770389

KEYWORDS SCA2 gene.

SOURCE human.

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 4163)

AUTHORS Imbert,G., Saudou,F., Yvert,G., Devys,D., Trottier,Y.,  
Garnier,J.M., Weber,C., Mandel,J.L., Cancel,G., Abbas,N., Duerr,A.,  
Didierjean,O., Stevanin,G., Agid,Y. and Brice,A.

TITLE Cloning of the gene for spinocerebellar ataxia 2 reveals a locus  
with high sensitivity to expanded CAG/glutamine repeats

JOURNAL Nat. Genet. 14 (3), 285-291 (1996)

MEDLINE 97051922

REFERENCE 2 (bases 1 to 4163)

AUTHORS Imbert,G.

TITLE Direct Submission

JOURNAL Submitted (20-SEP-1996) G. Imbert, I.G.B.M.C., Departement Of  
Genetics, B.P. 163, 67404 Illkirch Cedex, FRANCE

FEATURES Location/Qualifiers

source

1. .4163  
/organism="Homo sapiens"  
/isolate="DAN patient"  
/db\_xref="taxon:9606"  
/cell\_line="lymphoblastoid"  
/clone\_lib="DAN"  
/dev\_stage="adult"

gene

1. .2747  
/gene="SCA2"

CDS

<1. .2747  
/gene="SCA2"  
/codon\_start=3  
/protein\_id="CAA69589.1"  
/db\_xref="GI:1770390"  
/db\_xref="SPTREMBL:Q99493"  
/translation="GNGGGAFRPGSRRLGLGGPPRPFVVVLLPLASPGAPPAAPTRA

SPLGARASPPRSGVSLARPAPGCPRPACPEVYGPLTMSLKPQQQQQQQQQQQQQQQQQ  
QQQQQPPPAANVRKPGSGLLASPAAPSPSSSSVSSSSATAPSSVVAATSGGGRPG  
LGRGRNSNKGLPQSTISFDGIYANMRMVHILTSVVGSKCEVQVKNGGIYEGVFKTYSP  
KCDLVLDAAHEKSTESSSGPKREEIMESILFKCSDFVVVQFKDMDSSYAKRDAFTDSA  
ISAKVNGEHKEKDLEPWDAGELTANEELEALENDVSNOWDPNDMFRYNEENYGVVSTY  
DSSLSSYTVPLERDNSEEFKREARANQLAEEIESSAQYKARVALENDDRSEEEKYTA  
VQRNSSEREHGSINTRENKYIPPGQRNREVISWGSGRQNSPRMGQPGSGSMPSRSTSH  
TSDFNPNNGSDQRVVNGGVPWPSPCPSPPSRPPSRYSQSGPNSLPPRAATPTRPPSRPP  
SRPSRPPSHPSAHGSPAPVSTMPKMSSEGPPRMSPKAQRHPRNHRVSAGRGSISSGL  
EFVSHNPPSEAATPPVARTSPSGGTWSSVSVGPRLSPKTHRPRSPRQNSIGNTPSGP  
VLASPAQAGIIPTEAVAMPIPAASPTPASASNRAVTPSSEAKDSRLQDQRQNSPAGNK  
ENIKPNETSPSFSKAENKGISPVVSEHRKQIDDLKKFKNDFRLQPSSTSESMDQLLNK  
NREGEKSRDLIKDIEPSAKDSFIENSSNCTSGSSKPNSPSISPSILSNTEHKGPE  
VTSQGVQTSSPACKQEKDDKEKKDAAEQVRKSTLNPNAKEFNPRSFSPQPKPTPTPS  
PRPQAQPSPSMVGHQOPTPVYTQPVCFAPNMMYPVPVSPGVQYQICPNSGKTSIIRVP  
"

BASE COUNT 1136 a 1196 c 908 g 923 t

ORIGIN

Query Match 100.0%; Score 32; DB 9; Length 4163;  
Best Local Similarity 100.0%; Pred. NO. 0.83;  
Matches 32; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      1 cgccaacccgcgcctccccgctcggcgcccg 32
          ||||||||||||||||||||||||||||
Db    121 CGCCAACCCGCGCCTCCCCGCTCGGCGCCCGT 152
```



SEQ ID NO: 8

RESULT 3

HSDANSCA2

LOCUS HSDANSCA2 4163 bp mRNA PRI 09-JAN-1997

DEFINITION H.sapiens mRNA for SCA2 protein.

ACCESSION Y08262

VERSION Y08262.1 GI:1770389

KEYWORDS SCA2 gene.

SOURCE human.

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 4163)

AUTHORS Imbert,G., Saudou,F., Yvert,G., Devys,D., Trottier,Y., Garnier,J.M., Weber,C., Mandel,J.L., Cancel,G., Abbas,N., Duerr,A.,

Didierjean,O., Stevanin,G., Agid,Y. and Brice,A.

TITLE Cloning of the gene for spinocerebellar ataxia 2 reveals a locus

with high sensitivity to expanded CAG/glutamine repeats

JOURNAL Nat. Genet. 14 (3), 285-291 (1996)

MEDLINE 97051922

REFERENCE 2 (bases 1 to 4163)

AUTHORS Imbert,G.

TITLE Direct Submission

JOURNAL Submitted (20-SEP-1996) G. Imbert, I.G.B.M.C., Departement Of Genetics, B.P. 163, 67404 Illkirch Cedex, FRANCE

FEATURES Location/Qualifiers

source 1. .4163  
/organism="Homo sapiens"  
/isolate="DAN patient"  
/db\_xref="taxon:9606"  
/cell\_line="lymphoblastoid"  
/clone\_lib="DAN"  
/dev\_stage="adult"  
gene 1. .2747  
/gene="SCA2"  
CDS <1. .2747  
/gene="SCA2"  
/codon\_start=3  
/protein\_id="CAA69589.1"  
/db\_xref="GI:1770390"  
/db\_xref="SPTREMBL:Q99493"

/translation="GNGGGAFRPGSRRLGLGGPPRPFFVVLLPLASPGAPPAAPTRA

SPLGARASPPRSGVSLARPAPGCPRPACFPVYGPLTMSLKPQQQQQQQQQQQQQQQQQ

QQQQQPPPAANVRKPGGSGLLASPAAPSPSSSSVSSSSATAPSSVVAATSGGGRPG

LGRGRNSNKGLPQSTISFDGIYANMRMVHILTSVVGSKCEVQVKNGGIYEGVFKTYSP

KCDLVLDAAHEKSTESSGPKREEIMESILFKCSDFVVVQFKDMDSSYAKRDAFTDSA

ISAKVNGEHKEKDLEPWDAGELTANEELEALENDVSNWDPNDMFRYNEENYGVVSTY  
DSSLSSYTVPLERDNSEEFLLKREARANQLAEEIESSAQYKARVALENDDRSEEEKYTA  
VQRNSSEREGHSINTRENKYIPPGQRNREVISWGSGRQNSPRMGQPGSGSMPSRSTSH  
TSDFNPNNSGSDQRVVNGGVPWPSPCPSRSSRPPSRYSQSGPNSLPPRAATPTRPPSRPP  
SRPSRPPSHPSAHGSPAPVSTMPKRMSSEGPPRMSPKAQRHPRNHRVSAGRGSISSGL  
EFVSHNPPSEAATPPVARTSPSGGTWSSVSGVPRLSPKTHRPRSPRQNSIGNTPSGP  
VLASPOAGIIPTEAVAMPIPAASPTPASPNRAVTPSSEAKDSRLQDQRQNSPAGNK  
ENIKPNETSPSFSKAENKGISPVVSEHRKQIDDLKKFKNDFRLQPSSTSESMDQLLNK  
NREGEKSRDLIKDIEPSAKDSFIENSSSNCTSGSSKPNSPSISPSILSNTEHKGPE  
VTSQGVQTSSPACKQEKDDKEEKDAAEQVRKSTLNPNAKEFNPRSFQPKPSTTPTS  
PRPQAQPSPSMVGHQQPTPVYTQPVCFAPNMMYPVPVSPGVQYQICPNSGKTSIIRVP

"

BASE COUNT        1136 a    1196 c    908 g    923 t  
ORIGIN

Query Match                    100.0%;    Score 22;    DB 9;    Length 4163;  
Best Local Similarity    100.0%;    Pred. No. 92;  
Matches    22;    Conservative    0;    Mismatches    0;    Indels    0;  
Gaps    0;

Qy        1 gcgccctccccgctcggcgcccg 22  
          ||||||||||||||||||||  
Db       130 GCGCCTCCCCGCTCGGCGCCCG 151

SEQ ID NO: 12. (searched 11, but mismatched, therefore 12)

RESULT 8  
HSDANSCA2  
LOCUS HSDANSCA2 4163 bp mRNA PRI 09-JAN-1997  
DEFINITION H.sapiens mRNA for SCA2 protein.  
ACCESSION Y08262  
VERSION Y08262.1 GI:1770389  
KEYWORDS SCA2 gene.  
SOURCE human.  
ORGANISM Homo sapiens  
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;  
Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
REFERENCE 1 (bases 1 to 4163)  
AUTHORS Imbert,G., Saudou,F., Yvert,G., Devys,D., Trottier,Y.,  
Garnier,J.M., Weber,C., Mandel,J.L., Cancel,G., Abbas,N.,  
Duerr,A.,  
Didierjean,O., Stevanin,G., Agid,Y. and Brice,A.  
TITLE Cloning of the gene for spinocerebellar ataxia 2 reveals a  
locus  
with high sensitivity to expanded CAG/glutamine repeats  
JOURNAL Nat. Genet. 14 (3), 285-291 (1996)  
MEDLINE 97051922  
REFERENCE 2 (bases 1 to 4163)  
AUTHORS Imbert,G.  
TITLE Direct Submission  
JOURNAL Submitted (20-SEP-1996) G. Imbert, I.G.B.M.C., Departement  
Of  
Genetics, B.P. 163, 67404 Illkirch Cedex, FRANCE  
FEATURES  
Location/Qualifiers  
source 1. .4163  
/organism="Homo sapiens"  
/isolate="DAN patient"  
/db\_xref="taxon:9606"  
/cell\_line="lymphoblastoid"  
/clone\_lib="DAN"  
/dev\_stage="adult"  
gene 1. .2747  
/gene="SCA2"  
CDS <1. .2747  
/gene="SCA2"  
/codon\_start=3  
/protein\_id="CAA69589.1"  
/db\_xref="GI:1770390"  
/db\_xref="SPTREMBL:Q99493"  
  
/translation="GNGGGAFRPGSRRLGLGGPPRPVVLPLASPGAPPAAPTRA  
SPLGARASPPRSGVSLARPAPGCPRPACEPVYGPLTMSLKPQQQQQQQQQQQQQQQQ  
QQQQQPPPAANVRKPGGSGLLASPAAPSPSSSSVSSSSATAPSSVVAATSGGGRPG  
LGRGRNSNKGLPQSTISFDGIYANMRMVHILTSVVGSKCEVQVKNGGIYEGVFKTYSP

KCDLVLDAAHEKSTESSSGPKREEIMESILFKCSDFVVVQFKDMDSSYAKRDAFTDSA  
ISAKVNGEHKEKDLEPWDAGELTANELEALENDVSNQWDPNDMFRYNEENYGVVSTY  
DSSLSSYTVPLERDNSEEFLLKREARANQLAEEIESSAQYKARVALENDDRSEEEKYTA  
VQRNSSEREGHSINTRENKYIPPGQRNREVISWGSQRQNSPRMGQPGSGSMPSRSTSH  
TSDFNPNSGSDQQRVVNGGVPWPSPCPSRPPSRYSQSGPNSLPPRAATPTRPPSRPP  
SRPSRPPSHPSAHGSPAPVSTMPKRMSSEGPPRMSPKAQRHPRNHRVSAGRGSISSGL  
EFVSHNPPSEAATPPVARTSPSGGTWSSVVSQVPRLSPKTHRPRSPRQNSIGNTPSGP  
VLASPQAGIIPTEAVAMPIPAASPTPASPASNRAVTPSSEAKDSRLQDQRQNSPAGNK  
ENIKPNETSPSFSKAENKGISPVVSEHRKQIDDLKKFKNDFRLQPSSTSESMDQLLNK  
NREGESRDLIKDKIEPSAKDSFIENSSSNCTSGSSKPNSPSISPSILNTEHKGPE  
VTSQGVQTSSPACKQEKKDKKDAAEQVRKSTLNPNAKEFNPRSFSQPKPSTTPTS  
PRPQAQPSPSMVGHQOQTPVYTOPVCFAPNMMYPVPVSPGVQYQICPNSGKTSIIRVP

Query Match 94.1%; Score 25.4; DB 9; Length 4163;  
Best Local Similarity 96.3%; Pred. No. 64;  
Matches 26; Conservative 0; Mismatches 1; Indels 0;  
Gaps 0;

SEQ ID NO: 2

RESULT 1

HSDANSCA2/c

LOCUS HSDANSCA2 4163 bp mRNA PRI 09-JAN-1997

DEFINITION H.sapiens mRNA for SCA2 protein.

ACCESSION Y08262

VERSION Y08262.1 GI:1770389

KEYWORDS SCA2 gene.

SOURCE human.

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 4163)

AUTHORS Imbert,G., Saudou,F., Yvert,G., Devys,D., Trottier,Y.,  
Garnier,J.M., Weber,C., Mandel,J.L., Cancel,G., Abbas,N., Duerr,A.,  
Didierjean,O., Stevanin,G., Agid,Y. and Brice,A.

TITLE Cloning of the gene for spinocerebellar ataxia 2 reveals a locus  
with high sensitivity to expanded CAG/glutamine repeats

JOURNAL Nat. Genet. 14 (3), 285-291 (1996)

MEDLINE 97051922

REFERENCE 2 (bases 1 to 4163)

AUTHORS Imbert,G.

TITLE Direct Submission

JOURNAL Submitted (20-SEP-1996) G. Imbert, I.G.B.M.C., Departement Of  
Genetics, B.P. 163, 67404 Illkirch Cedex, FRANCE

FEATURES Location/Qualifiers

source

1. .4163  
/organism="Homo sapiens"  
/isolate="DAN patient"  
/db\_xref="taxon:9606"  
/cell\_line="lymphoblastoid"  
/clone\_lib="DAN"  
/dev\_stage="adult"

gene

1. .2747  
/gene="SCA2"

CDS

<1. .2747  
/gene="SCA2"  
/codon\_start=3  
/protein\_id="CAA69589.1"  
/db\_xref="GI:1770390"  
/db\_xref="SPTREMBL:Q99493"  
/translation="GNGGGAFFRPGSRRLGLGGPPRPVVLPLASPGAPPAAPTRA  
SPLGARASPPRSGVSLARPAPGCPRPACEPVYGPLTMSLKPQQQQQQQQQQQQQQQ  
QQQQQPPAAANVRKPGSGLLASPAAPSPSSSSVSSSSATAPSSVVAATSGGGRPG  
LGRGRNSNKGLPQSTISFDGIYANMRMVHILTSVVGSKCEVQVKNGGIYEGVFKTYSP  
KCDLVLDAAHEKSTESSGPKREEIMESILFKCSDFVVVQFKDMDSSYAKRDAFTDSA  
ISAKVNGEHKEKDLEPWDAGELTANEELEALENDVSNWDPNDMFRYNEENYGVVSTY  
DSSLSSYTVPLERDNSEEFKREARANQLAEEIESSAQYKARVALENDDRSEEEKYTA  
VQRNSSEREGHSINTRENKYIPPGQRNREVISWGSQRQNSPRMGQPGSGSMPSRSTSH  
TSDFNPNSGSDQRVVNGGVWPSPCPSPPSRPPSRYPQSGPNLPPRAATPTRPPSRPP  
SRPSRPPSHPSAHGSPAPVSTMPKMSSEGPPRMSPKAQRHPRNHRVSAGRGSISSGL  
EFVSHNPPSEAATPPVARTSPSGGTWSSVSGVPRLSPKTHRPRSPRQNSIGNTPSGP  
VLASQAGIIPTEAVAMPIAASPTPASPNRAVTPSSEAKDSRLQDQRQNSPAGNK  
ENIKPNETSPSFSKAENKGISPVVSEHRKQIDDLKKFKNDFRLQPSSTSESMDQLLNK  
NREGEKSRDLIKDKIEPSAKDSFIENSSSNTSGSSKPNSPSISPSILNTEHKGPE  
VTSQGVQTSSPACKQEKDDKEKKDAAEQVRKSTLNPNAKEFNPRSFQPKPSTTPTS  
PRPQAQPSPSMVGHQQPTPVYTQPVCFAPNMMYPVPVSPGVQYQICPNSGKTSIIRVP  
"

BASE COUNT 1136 a 1196 c 908 g 923 t  
ORIGIN

Query Match 100.0%; Score 20; DB 9; Length 4163;  
Best Local Similarity 100.0%; Pred. No. 78;  
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      1 gtggccgaggacgaggagac 20
          |||||
Db    433 GTGGCCGAGGACGAGGAGAC 414
```